WHAT IS CLAIMED IS:

1. A method for generating a report at a client computer based on data resident at a server computer, the method comprising, at a client computer:
    a) obtaining from a server computer by way of a remote procedure call a list of items to be included in a report, the list including a reference associated with each of the items;
    b) for each of the items in the list, generating a request for data associated with the item, the request including the reference associated with the item;
    c) forwarding the request to the server computer by way of a remote procedure call;
    d) receiving from the server computer the requested data associated with the item;
    e) after receiving the requested data serially repeating (b), (c) and (d) for subsequent items in the list; and,
    f) rendering a report based on the requested data.

2. The method of claim 1 comprising, prior to first generating a request for data associated with the item, requesting from the server computer, and obtaining a report definition, the report definition including an identification of one or more specific data to be requested for each item, wherein generating a request for data associated with the item comprises generating a request for the one or more specific data.

3. The method of claim 1 comprising, prior to obtaining the list of items, requesting from the server computer, and obtaining a report definition, the report definition including a search criteria

wherein obtaining the list of items comprises requesting from the serer computer a list of items which match the search criteria.

4. The method of claim 3 wherein the report definition comprises an order for presentation of the items in the list and obtaining the list of items comprises requesting from the server computer a list of items presented in the order.

5. The method of claim 3 wherein the report definition includes an identification of one or more specific data to be requested for each item, wherein generating a request for data associated with the item comprises generating a request for the one or more specific data.

6. The method of claim 1 comprising requesting from the server computer and obtaining a report format, wherein rendering the report is performed in accordance with the report format.

7. A method for making data available to users at a plurality of distributed network-connected user computer systems, the method comprising:

a) maintaining entirely in a high-speed memory of a server computer a data store comprising a data heap containing a number of data and a data reference vector comprising a plurality of records, each record corresponding to a datum in the data heap;

b) receiving at the server computer a request for data, the request comprising a reference corresponding to a record in the data reference vector;

d) based on the record in the data reference vector corresponding to the reference, retrieving the requested data from the data store;

e) unlocking the data store; and,

5 f) forwarding the requested data to a client computer system.

8. The method of claim 7 wherein forwarding the requested data to a client computer system comprises forwarding the requested data by way of a remote procedure call.

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9. The method of claim 7 wherein the reference comprises an offset from a head of the data reference vector.

10. The method of claim 7 wherein each record in the data reference
15 vector comprises a change value for the corresponding datum and the method comprises changing the change value each time the corresponding datum is altered.

11. The method of claim 10 wherein the reference comprises a
20 change value and the method comprises comparing the reference change value to the data reference vector change value and generating an exception if the reference change value does not match the data reference vector change value.

25 12. The method of claim 7 wherein each record in the data reference vector comprises a uniqueness value and the method comprises changing the uniqueness value each time the record is assigned to a different datum.

30 13. The method of claim 12 wherein the reference comprises a

reference uniqueness value to the data reference vector
uniqueness value and generating an exception if the reference
uniqueness value does not match the data reference vector
uniqueness value.

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14. The method of claim 7 wherein each record in the data reference
vector comprises a data kind value and the method comprises
setting the data ind value to match a data type of the
corresponding datum.

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15. The method of claim 14 wherein the reference comprises a data
kind value and the method comprises comparing the reference
data kind value to the data reference vector data kind value and
generating an exception if the reference data kind value does not
15 match the data reference vector data kind value.

16. The method of claim 7 comprising periodically backing up
changes in the data store to a slower storage medium.

20 17. The method of claim 16 comprising periodically backing up the
entire data store to the slower storage medium.

18. The method of claim 8 wherein the remote procedure call passes
object parameters.

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19. The method of claim 8 wherein forwarding the requested data to a
client computer system comprises generating a reply message, the
reply message comprising a header and a body, the header
comprising a first part and a second part, the first part of the
30 header comprising a flag and a length, wherein the method
comprises encrypting the second part of the header and the body

of the reply message before forwarding the reply message to the client computer system.

20. The method of claim 19 comprising compressing the body of the reply message before forwarding the reply message to the client computer system.

21. A method for making data available to users at a plurality of distributed network-connected user computer systems, the method comprising:

    a)   maintaining entirely in a high-speed memory of a server computer a data store;

    b)   establishing a remote procedure call connection between the server computer and a client computer;

    c)   receiving by way of the remote procedure call connection a request for data from the data store;

    c)   locking the data store;

    d)   based on the request, retrieving the requested data from the data store;

    e)   unlocking the data store; and,

    f)   forwarding the requested data to the client computer system by way of the remote procedure call connection.

22. A computer programmed to implement a method according to claim 1.

23. A program product comprising a medium carrying computer-readable signals, the signals comprising instructions which, when executed by a computer processor cause the computer processor to execute a method according to claim 1.

24. A memory-resident data structure as shown in Figure 3.